

REMARKS

Responsive to the Office Action mailed March 23, 2006, applicant request entry of the foregoing amendments, consideration of the following remarks and reconsideration of the rejections set forth in said Office Action.

Claims 1-4, 7-10, 15, 16 and 22 were rejected under 35 USC 102(e) as being anticipated by Martyak US 6585812 (herein after Martyak '812). Applicants submit that Martyak '812 fails to disclose each and every feature of the claims as amended.

The present invention relates to solutions of dithionic acid and/or dithionate salts in combination with a metal sulfate or ammonium sulfate for use in metal finishing processes such those related to the cleaning, activating, electroplating, electroless plating, conversion coating and/or other pre-treatment or post-treatment of a metallic surface. The combinations of the present invention improve the performance of electroplating formulations to which they are added. It is submitted that the cited references fail to disclose, expressly or by implication, the combinations set forth in the claims as amended.

Martyak '812 discloses a high current electrogalvanizing process in which a sulfonated condensation product of naphthalene and formaldehyde is added to an acidic aqueous zinc salt in an electrolytic cell as an antidendritic agent. Myrtak '812 discloses that the pH of the bath may be adjusted with sulfur acids such as sulfuric, sulfurous, oleum, thisulfuric, dithionous, metasulfuric, dithionic, pyrosulfuric or persulfuric and the like as well as mixture thereof. It is submitted that there is no teaching in Martyak '812 of the use of a combination of dithionic acid and/or dithionate salts with a metal sulfate or ammonium sulfate as described and claimed in the present application. Martyak '812 fails to disclose the use of a metal sulfate or ammonium sulfate and therefore fails to anticipate the present invention.

Claims 1-4, 7-10, 15, 16 and 22 were rejected under 35 USC 102(b) as being anticipated by Martyak US 5,718,818 (herein after Martyak '818). Applicants submit that Martyak '818 fails to disclose each and every feature of the claims as amended.

Martyak '818 discloses a zinc sulfate aqueous acidic electrogalvanic bath which includes a high molecular weight polyoxyalkylene glycol grain refining agent in combination with a sulfonated condensation product of naphthalene and formaldehyde as an antidendritic agents. Applicants submit that Martyak '818 fails to disclose, either expressly or by implication, a combination of dithionic acid and/or dithionate salts with a metal sulfate or ammonium sulfate as described and claimed in the present application. Martyak '818 fails to disclose a combination which included a metal sulfate or ammonium sulfate and therefore fails to anticipate the present invention.

Claims 1-4, 7-10, 15, 16 and 22 were rejected under 35 USC 102(b) as being anticipated by Kogure US 4130431 (herein after Kogure '431). Applicants submit that Kogure '431 fails to disclose each and every feature of the claims as amended.

Kogure '431 discloses a metal surface treatment liquid and rust preventative containing oxytitanic ion and/or peroxytitanic ion. Kogure '431 discloses the use of inorganic acids such as hydrochloric acid, hydrofluoric acid, chloric acid, perchloric acid, sulfuric acid, sulfurous acid, pyrosulfuric acid, nitric acid, nitrous acid, phosphoric acid, pyrophosphoric acid, metaphosphoric acid etc. Applicants submit that Kogure '431 fails to disclose, either expressly or by implication, a combination of dithionic acid and/or dithionate salts with a metal sulfate or ammonium sulfate as described and claimed in the present application. Kogure '431 fails to disclose a combination which includes a metal sulfate or ammonium sulfate and therefore fails to anticipate the present invention.

Claims 5, 6 11-14, 18-20 and 22 were rejected under 35 USC 102 (b) as being anticipated by Kukanskis US 5,547,559 (herein after Kukanskis '559). Applicants submit that Kukanskis '559 fails to disclose each and every feature of the claims as amended.

Kukanskis '559 discloses a process for plating metals in which divalent or tetravalent sulfur compounds and/or cathodic electrocleaning is use between activation of the surface and electroplating. Kukanskis '559 discloses treatment of the surface with divalent or tetravalent sulfur compounds, sulfites, thiosulfites, thioureas and dithionates. Applicants submit that Kukanskis '559 fails to disclose, either expressly or by implication, a combination of dithionic acid and/or dithionate salts with a metal

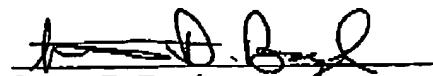
sulfate or ammonium sulfate as described and claimed in the present application. Kukanskis '559 fails to disclose a combination which includes a metal sulfate or ammonium sulfate and therefore fails to anticipate the present invention.

Applicants gratefully acknowledge the indication of the allowance of claim 21 and the allowability of the subject matter of claim 17. Claim 15, from which claim 17 depended, has been amended to incorporate the tin plating limitations of claim 17 and claim 17 canceled. Applicants submit that in view of this amendment, claim 15 and 16 are in condition for allowance.

In view of the foregoing remarks, applicant respectfully submits that claims 1-5, 7-11, 13-16, 18 and 21 of the present application are in condition for allowance and prompt favorable action is solicited.

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Respectfully submitted,



Steven D. Boyd
Attorney of Record
Reg. No. 31,000
(215) 419-5270
Customer Number 31684